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Remarks

Upon entry of the foregoing amendment, claims 54-123 are pending in the application, with claims 54, 68, 78, 92 and 107 being the independent claims.

Claim Rejection Under 35 U.S.C. § 103(a)

Claims 54-111, 113-114, 116, 118-119, and 121-122 were rejected as being unpatentable over Spinella. Applicants respectfully traverse this rejection.

Establishing prima facie obviousness requires a showing that each claim element is taught or suggested by the prior art. See In re Royka, 490 F.2d 981, 180 USPQ 580 (CCPA 1974). Absent a showing of such motivation and suggestion, prima facie obviousness is not established. See In re Fine, 5 USPQ2d at 1598.

The presently claimed method involves the use of a primer-adapter nucleic acid to synthesize cDNA. A primer-adapter nucleic acids includes a ligand and a cleavage site (e.g., restriction enzyme cleavage site). The specification clearly describes such primer-adapter nucleic acids at page 4, line 23-26; page 12, lines 16-19; page 17, lines 5-6, page 18, lines 3-5, 14-15, 20-21, and 24-27; and in Figure 1. The cDNA molecules are contacted with a hapten (e.g., a haptenylated support) to produce a cDNA-hapten (e.g., cDNA-support) complex. A single enzyme is used to cleave the cDNA-hapten complex at sites within the primer-adapter.

- 15 -   GRUBER *et al.*
                                    Appl. No. 10/816,886

The Spinella reference fails to disclose or suggest contacting a cDNA molecule with a hapten. The Office Action acknowledges that "Spinella et al does not disclose contacting one or more of the cDNA molecules with at least one hapten to produce one or more hapten-cDNA molecule complex." Thus, Spinella fails to disclose an entire step of the claimed methods (i.e., step (c) of independent claims 54, 68, 78, 92, and 107). This omission cannot properly be characterized as a simple reordering of steps, as the Office Action appears to suggest at pages 3-4.

The cited reference also fails to disclose or suggest the use of only a single enzyme to cleave the cDNA-hapten complex at sites within a primer-adapter. The portion of Spinella (i.e., col. 5, lines 37-55, specifically line 44) referenced in the Office Action with respect to cDNA cleavage uses a restriction enzyme that does not cleave within the primer.

Accordingly, the Spinella reference does not teach or suggest each claim element of the present claims. Therefore, prima facie obviousness has not been established. Applicants therefore request that this rejection under 35 U.S.C. § 103(a) be withdrawn.

Claims 112, 115, 117, 120, and 123 also were rejected as being unpatentable over Spinella further in view of Ando. Applicants respectfully traverse this rejection.

The Office Action states that Spinella does not disclose the use Superscript reverse transcriptase in the disclosed method and Ando teaches first-stranded cDNA synthesis with of Superscript II to amplify a 3 kb region of a Polymerase Gene to the Poly(A) tail of Small round-structured viruses.

- 16 -   GRUBER *et al.*
                                          Appl. No. 10/816,886

As indicated above, the Spinella reference does not teach or suggest each feature of

the present claims. The Ando reference does not cure those deficiencies. Thus, prima facie

obviousness has not been established. Applicants therefore request that this rejection under

35 U.S.C. § 103(a) also be withdrawn.

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- 17 -   GRUBER *et al.*
                         Appl. No. 10/816,886

Conclusion

All of the stated grounds of rejection have been properly traversed, accommodated, or rendered moot. Applicants therefore respectfully request that the Examiner reconsider and withdraw all presently outstanding rejections. Applicants believe that a full and complete reply has been made to the outstanding Office Action and, as such, the present application is in condition for allowance.

Prompt and favorable consideration of this Amendment and Reply is respectfully requested.

Respectfully submitted,

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